

## **MINUTES**

### **CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE (CTCDC) MEETING**

Sacramento, October 11, 2007

The last and third CTCDC meeting of year 2007 was held in Sacramento, on October 11, 2007.

Chairman Farhad Mansourian opened the meeting at 9:10 a.m. with the introduction of Committee members and guests.

The Committee Member Hamid Bahadori paid tribute to George Allen, Traffic Engineer City of Garden Grove, who passed away on September 2, 2007. Hamid also suggested to adjourn today's meeting in the memory of George Allen. Mike Robinson, County of San Diego, also paid tribute to George Allen and shared few highlights of George life with Committee and audience. The following Members, alternates and guests were in attendance:

<b><u>ATTENDANCE</u></b>	<b><u>ORGANIZATION</u></b>	<b><u>TELEPHONE</u></b>
<b>Members (Voting)</b>		
Farhad Mansourian Chairman	CA State Association of Counties Marin County	(415) 499-6570
Hamid Bahadori Vice-Chairman	Auto Club of Southern California	(714) 885-2326
John Fisher	League of CA Cities City of Los Angeles	(213) 972-8424
Wayne Henley	Caltrans	(916) 654-6246
Jeff Knowles (Alternate)	League of CA Cities City of Vacaville	(707) 449-5349
Deborah Wong (Alternate)	California State Automobile Association	(415) 241-5847
Jacob Babico	CA State Association of Counties San Bernardino County	(909) 387-8186
Lujuanna Lopez	CHP	(916) 657-7222
<b><u>Alternate</u></b>		
Ed von Borstel	League of CA Cities City of Modesto	(209) 577-5266

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## **MINUTES**

Adoption of June 7, 2007 CTCDC meeting minutes.

**Motion:** Moved by Hamid Bahadori, seconded by Lujanna Lopez, to adopt the Minutes of June 7, 2007 CTCDC meeting held in San Diego, California. Motion carried 8-0.

### **Election & Membership**

Election of the Chairman and Vice Chairman will be held during the January 2008 meeting. Jeff Knowles, Alternate Member, League of California Cities acted as voting member since Ed von Borstel, Voting Member was serving Jury Duty. Deborah Wong, Alternate Member, California State Automobile Association, acted as a voting member in place of Merry Banks.

### **Public Comments:**

Chairman Mansourian asked for public comments on any item not appearing on the agenda.

Melanie Madanat, Modern Innovations, stated that their company has invented a device which would enhance the operation of traffic signals. The objective is to provide more visibility of the red light phase. The device will be helpful to reduce red light running type collisions. She stated that the backplate of the traffic signal would be illuminated with a line of LED during the red phase. The LED around the backplate will increase the visibility of the red phase. She stated that she approached the City of Oakland, and the City suggested approaching the California Traffic Control Devices Committee. She asked the Committee how she could introduce this product.

Chairman Mansourian explained the process of introducing a new traffic control device. He stated first she needs to approach to the FHWA and then the CTCDC for experimental approval. The proposal must be submitted by a local agency that has jurisdiction on the roadway.

Hamid Bahadori suggested before investing lot of time and effort, to make sure that one of the reasons for red light collisions is due to less visibility of the red light.

John Fisher asked Devinder Singh to provide guidelines on the process of conducting an experiment with a new traffic control device to Melanie Madanat.

There were no other public comments.

**07-16 SB 848, as Amended, Corbett. Vehicles: Engineering and Traffic Survey: Speed Trap.**

Chairman Mansourian stated that yesterday, October 10, 2007, a Workshop was held to discuss the policy to establish speed limits on public roadways. There were over 40 participants from public agencies, council members, and law enforcement. He appreciated their time and providing very good comments. The participants were divided into four groups and each group was asked to discuss four alternatives presented to them. The groups were not limited to four alternatives, but instead could come up with a new alternative if they believe it would work better.

**For the readers clarification four alternatives were as follows:**

**Alternative 1**

Make no changes to the current language of Section 2B.13 in the CA MUTCD, and formally adopt an official position that the CTCDC opposes any efforts, including any proposed legislation in the future, to change and/or amend this section.

**Alternative 2**

Revise the language in Section 2B.13 to allow “rounding down” to the nearest 5 MPH increment (as it was in the Traffic Manual), and add specific language that when “special downward speed zoning” provision is used, then under no circumstances and for no reason the posted speed limit shall be lower than a certain benchmark. This benchmark can be:

- 1) No more than 7 MPH below the 85<sup>th</sup> percentile speed as determined by an E&T,
- 2) Not below the 50<sup>th</sup> percentile speed as determined by an E&TS,
- 3) A combination of No. 1 and No. 2, or,
- 4) Other language safeguarding against excessively low speed limits.

This approach will accommodate concerns of some local agencies while providing safeguards against the abuse of “special downward speed zoning” provision.

The “7 MPH” benchmark will provide the same safeguard that the current language provides, while the “50<sup>th</sup> percentile” provision may ensure that the majority of drivers will not be in violation of the posted speed limit.

It will also help to add language to make specific reference in Section 2B.13 to the landmark case of “*People v. Goulet*” and CVC section 22358.5 further clarifying the requirements for the application of “special downward speed zoning” provision.

**Alternative 3**

Revise the language in Section 2B.13 to allow “rounding up” or “rounding down” to the nearest 5 MPH increment based on engineering judgment, but prohibit the use of “special downward speed zoning” provision “under any circumstances” for locations where the speed limit has been “rounded down.”

**Alternative 4**

Revise the language in Section 2B.13 to the “old” Traffic Manual text to allow “rounding down” to the nearest 5 MPH with no additional changes.

Each group presented the following recommendations:

**Group 1:**

Majority recommended to adopt rounding down to the 85<sup>th</sup> percentile speed and clarify the not readily apparent conditions for further reduction.

Minority suggested that at no time the posted speed limit shall be less than 50<sup>th</sup> percentile.

**Group 2:**

Unanimously recommended to adopt 1996 Traffic Manual language.

**Group 3:**

Majority of the groups recommended alternative 2, rounding down and in no case the posted speed can be reduced more than 7MPH from the 85<sup>th</sup> percentile.

Two minority groups; one group suggested to adopt alternative 1, and the second group suggested adopting alternative 2.

**Group 4:**

Majority recommended alternative 2 with an additional 5-mph reduction based on the not readily apparent conditions.

Minority group suggested alternative 4 with either a maximum 7MPH reduction or a 50% floor.

Chairman Mansourian stated that the workshop was very productive and everyone supported that there is a need for flexibility.

Chairman Mansourian first opened the item for public comments.

Chad Dornsife, Highway Safety Director for Engineering Practices and National Motorists Association, stated that the speed limit issue has been discussed at the National level for a number of years. Institute of Traffic Engineers (ITE) established a Committee to come up with guidelines for the speed limit establishment. The committee recommended that the speed limit posted at 85<sup>th</sup> percentile or slight above the 85<sup>th</sup> percentile is the safest speed for that particular highway. That language was included in the 2000 MUTCD. The committee recommended that in no case the posted speed limit be less than 67<sup>th</sup> percentile. He further added that there were a number of studies conducted at the National level and International level and those studies have mentioned that going under posted speed limits cause more collisions. The speed limit posted at the 85<sup>th</sup> percentile contributes in reduction of speed related collisions. He commented that if an engineering judgement suggests a reduction in speed limit, it should not be less than 67<sup>th</sup> percentile. The speed limit less than 67<sup>th</sup> percentile should be well articulate in writing.

There were no more comments from the public, and Chairman Mansourian opened for discussion among Committee members.

Jacob Babico stated that generally speaking the 1996 Traffic Manual language as well as the CA MUTCD calls that the posted speed limit should be at 85<sup>th</sup> percentile, however, also considers the pace speed when establishing a speed limit.

John Fisher stated that based on the Workshop discussion, he came up with a few conclusions. First, there was a desire to have flexibility. Second, in many cases the flexibility has been abused to determine the speed limit. In many cases, the 5-mph further reduction has been used without any documentation. If there are high collisions due to speeding, surprise conditions on the roadway, and reduced visibility, then he supports the further 5-mph reduction. However, he would like to make more restrictive guidelines for a 5-mph reduction. He suggested providing flexibility and beefing up the guidelines which allows for further 5-mph reduction. He added that sometimes the flexibility is used to come up with an artificial speed limit that puts the majority of drivers in violation while they are law-abiding drivers. He suggested that consequences of artificial speed limits are affecting a number of other safety concerns, such as placement of signs, set up of construction traffic controls (taper, detour etc), and setting of a yellow timing at signalized intersections. The shorter yellow timing may contribute to more collisions, because the driver will not be able to make the right judgement. Also artificial speed puts the majority of legal drivers in violation. He stated that he would like to hear comments from the rest of the Committee.

Wayne Henley stated that the yellow timing is a very important factor for the signal operation and artificial lowered speed limit could put a number of drivers in a safety risk. He agreed with John Fisher's comments.

Lujuanna Lopez stated that the engineers are the one who can provide legality, so that the law enforcement agencies can enforce the speed limits. She stated that she has two concerns; one, the safety of the community, and second, the artificial posted speed limit, which puts the majority of drivers in violation. Also, the artificial speed limit has consequences on the yellow timing which could cause safety problems at signalized intersections. She agreed with the earlier comments made by Chad Dornsife about the minimum speed limit that should not be less than 67<sup>th</sup> percentile.

Hamid Bahadori stated that the Workshop held yesterday was really beneficial to learn about the opinion of different individuals. He stated that the Auto Club has approximately 10 million members in California, and he is sitting to address their concerns. He stated that the majority of people are law-abiding citizens; otherwise no law enforcement and courts can keep the community in order. He added that the majority of drivers are prudent people, they do not want to get hurt or hurt any body else. He suggested that the Committee should not come up with law to protect a few and put the majority of people in violation. If the Committee creates bad policy, then the majority of will break it. He added that speed limit is a law and it is clearly outlined in the CVC. The Committee should not substitute their own thinking and put the majority of people in violation. Majority of drivers are not going to drive which is not safe. He mentioned about the 3Es: engineering, enforcement, and education. The agencies are limited in enforcement, also in education, and the Committee should not compromise in engineering. He stated that numerous studies on speed limit indicate that a speed limit posted way below the 85<sup>th</sup> percentile causes more collisions. He further suggested that whatever the outcome from today's hearing, the Committee should not make retroactive policy, because a number of agencies have posted speed limits according to new policy (CA MUTCD). He stressed that the policy should not put the majority of drivers in violation. He further added that the language of Section 2B.13 is very confusing and needs cleaning. As a professional, traffic engineers need to do their job and should use policies to establish a speed limit.

Chairman Mansourian stated that he agreed with the comments of his colleagues. He thanked everybody who participated yesterday in the Workshop and presented in today's meeting to discuss this item. He shared his comments with Committee members and the audience. He stated that he wants flexibility and does not want what politicians want him to do. He suggested having flexibility, however at the same time, credibility to the profession. He suggested having a floor so posted speed limit does not represent 18<sup>th</sup> percentile of the drivers. He supported beefing up the language that allows further 5-mph reduction and clarifying the language to help professionals set up speed limits. He suggested that if the Committee comes up with language today, then the Committee and Caltrans will work together and bring the final

language to the next meeting for adoption. He also wants to share today's decision with the 400 cities and 58 counties before the January 2008 meeting.

**Chairman Mansourian proposed three topics for the discussion as follows:**

- Flexibility to 5-mph increment below the 85<sup>th</sup> percentile speed.
- Ability to lower further 5-mph based on the conditions not readily apparent to drivers.
- And having a floor that the posted speed limit is not less than 50<sup>th</sup> percentile.

He gave few examples to the Committee members and audience so everyone understands what is happening when they establish speed limits and use guidelines to lower the speed from the 85<sup>th</sup> percentile. He gave four different scenarios as follows:

	85 <sup>th</sup> Percentile Speed	50 <sup>th</sup> Percentile Speed	Pace Speed
1.	34 mph	30 mph	25 to 34 mph
2.	37 mph	30 mph	26 to 35 mph
3.	38 mph	32 mph	28 to 37 mph
4.	31 mph	26 mph	22 to 31 mph

Now the concept is, if the speed is established at the first 5-mph increment below the 85<sup>th</sup> percentile and it can be further reduced 5-mph based on the unusual conditions not readily apparent to drivers, then the final speed limit shall not be less than 50<sup>th</sup> percentile.

John Fisher asked if the 85<sup>th</sup> percentile speed could be rounded upward, such as in scenario number 1 where the 85<sup>th</sup> percentile is 34 mph and it can be rounded up to 35 mph.

Chairman Mansourian stated that the option of rounded up or down will require justifications such as why it was rounded up, not down. It can be challenged in the court of law.

John Fisher further asked whether the proposal is "round down" or "within" the 85<sup>th</sup> percentile.

Chairman Mansourian asked to review Example 1, the 85<sup>th</sup> percentile speed is 34-mph, an agency can round down to 30-mph, because it is allowed under the first 5-mph increment below the 85<sup>th</sup> percentile. However, if an agency would like to use conditions not readily apparent to drivers and justify further 5-mph reduction, they can not do that because the 50<sup>th</sup> percentile is 30 mph.

In Example 2, the 37 mph can be rounded down to 35 mph and if unusual conditions exist, the agency can go further down and post speed limit as 30 mph. In this case, the 50<sup>th</sup> percentile is 30 mph and further reduction is fine.

In Example 3, the 85<sup>th</sup> percentile is 38 mph, the agency can go from 38 mph to 35 mph and if they use further 5-mph reduction for unusual conditions not readily apparent to drivers, then the speed limit will be 30 mph. However, the 50<sup>th</sup> percentile is 32 mph; therefore, the speed limit can not go down below 35 mph.

In Example 4, the 85<sup>th</sup> percentile is 31 mph and can be rounded down to 30 mph. If unusual conditions not readily apparent to drivers exist, the further reduction can not be justified, because the 50<sup>th</sup> percentile speed is 26 mph.

Chairman Mansourian stated that he wants to put this concept up for discussion.

Hamid Bahadori stated that the four examples provided by the Chairman were good exercises, and also three topics are good for discussion. He suggested whatever the Committee recommends, the language needs to be simple and easily understood by the engineers, courts, and the public. He further added that if the Committee recommends using the MUTCD language which uses, "within" it will be challenged in the courts, because of the rounding down and rounding up. The conditions not readily apparent to drivers are covered under CVC Section 22358.5, and it is very clearly outlined what conditions can be used for further 5-mph reduction. He commented that the Committee should not develop any guidelines for further 5-mph reduction, because it is covered in the CVC. He suggested going back to the 1996 Traffic Manual language and putting a floor for the minimum speed limit based on the 85<sup>th</sup> percentile.

Jeff Knowles stated that he would like to see the flexibility. He added that sometimes the majority of drivers could be wrong, especially when talking about unusual conditions not readily apparent to drivers. He cited example three, given by the Chairman, and stated that he has gone from 38 mph to 35 mph and in certain situations he has gone to 30 mph. With the proposed language he will not be able to go to 30 mph because the 50<sup>th</sup> percentile speed is 32 mph. He does not support a restriction like having a floor for the minimum speed. He would like to have flexibility so he can reduce speed limit on certain roadways where unusual conditions exist or high collision rates. He agreed that many agencies that use unusual conditions are not following guidelines properly, and they reduce the speed arbitrarily. He further agreed there may be utility companies doing lane closures based on posted speed limits, because they does not have access to the critical speed. However, he used critical speed to set up the closures and to determine minimum yellow timing for the signalized intersections. He questioned whether the Committee wanted to tie the hands of the engineers so they can not use their judgement when there are safety problems. He recommended the Committee consider adopting the 1996 Traffic Manual guidelines.

John Fisher stated that the flexibility of a 5-mph increment below the 85<sup>th</sup> percentile speed sometimes puts the majority of drivers in violation. He cited one example of E&TS conducted in the City of Los Angeles, the 85<sup>th</sup> percentile is 34.6 mph and if you round down to 30 mph as proposed, then 62 percent of drivers will be in violation of the speed limit and the facility would be posted for the 38 percent of drivers. If you always round down to the 85<sup>th</sup> percentile speed, the speed limit could be less than the 50<sup>th</sup> percentile. He favored to go either up or down, or supported the National manual language which says, *"When a speed limit is to be posted, it should be within 5 mph of the 85th-percentile speed of free-flowing traffic."*

Hamid Bahadori stated that the National language will create problems for agencies. Agencies have to justify why they rounded upward instead of downward or vise versa. It will be challenged in courts all the time. Every time an agency rounds downward, they will be asked why rounding was not upward, especially when 85<sup>th</sup> percentile is 38 or 39 mph. He further added that when an agency used unusual conditions not readily apparent to drivers, to justify additional 5-mph reduction, most of the time the posted speed limit is for the minority of drivers and majority drivers are in violation, because the speed limit is set arbitrarily. If you go back and redo the E&TS after 5-10 years, the 85<sup>th</sup> percentile will be



higher again. He stated that he does not understand why agencies do not look at other options to mitigate unusual conditions. The artificial speed limit is not a solution. He also talked about the utility companies who have blanket permits from the agencies and use posted speed limits to do their closures, lane-shifting, etc. He also mentioned about the yellow timing which is calculated based on the posted speed limit. He commented that if a posted speed is 9 mph below the 85<sup>th</sup> percentile, then the yellow timing will be calculated by using a posted speed limit which does not represent the majority of drivers. This could cause collisions at the signalized intersection, because a driver driving at the critical speed would not be able to cross through the intersection due to shorter yellow timing. Sometimes contractor use the posted speed limit for lane closures to perform construction work, and they will be using a speed which does not represent the majority of drivers which may cause safety problems.

Jacob Babico stated that he suggest rolling back to the 1996 Traffic Manual with two conditions. One, in no case the posted speed limit is outside of 10 mile pace speed, and second, clarify conditions not readily apparent to drivers for the further 5-mph reduction.

Chairman Mansourian stated that he would like to divide the debate in three parts:

- Rounding up or down (basically using MUTCD language which states, “When a speed limit is to be posted, it should be **within 5 mph** of the 85th-percentile speed of free-flowing traffic.”
- Clarify the language for conditions not readily apparent to drivers
- Should there be a floor? If yes, then what would be the floor?

The majority of Committee members want to adopt MUTCD language which says “within 5 mph of the 85<sup>th</sup> percentile of free-flowing traffic” and clarify the language for the further 5 mph reduction based on conditions not readily apparent to drivers. On the third part, the entire committee, except Jeff Knowles, wants to have a floor.

John Fisher stated that everybody wants flexibility. There is a need for a floor. However, he also wants the posted speed limit to be for the super majority of drivers. In the proposal, if there is an accident problem on certain segments of the roadway, there is flexibility to go down, however, the proposed floor is 50<sup>th</sup> percentile speed, which does not represent the super majority. He stated that ITE suggested the minimum posted speed should not be less than 67<sup>th</sup> percentile. He stated that designing a facility at the 50<sup>th</sup> percentile is not for the super majority and he would like to discuss the 50<sup>th</sup> percentile floor.

Hamid Bahadori stated that using a 67<sup>th</sup> percentile floor will be little hard on jurisdictions, however he does not have a problem to consider it for discussion.

John Fisher stated that if the posted speed is 50<sup>th</sup> percentile, it might compromise the yellow timing for signalized intersections.

Lujuanna Lopez stated that the judges consider E&TS, if they believe the posted speed is artificial, then they throw away the citations.

Jeff Knowles stated he does not recall any historical problem with the initial rounding, and the whole focus is on the additional 5 mph reduction based on the conditions not readily apparent to drivers. He does not recall misuse or any problem with that option.

Chairman Mansourian stressed that the focus is on either “within” or “rounding down.”

Hamid Bahadori stated that he would like to move motion on this part:

**Motion:** Moved by Hamid Bahadori, seconded by Jeff Knowles, recommend to adopt the language, “When a speed limit is to be posted, it should be within 5 mph of the 85th-percentile speed of free-flowing traffic. If it is rounded up the justification is needed, if it is rounded down no justification is required.”

Chairman Mansourian asked for discussion on the motion.

Hamid Bahadori stated that in his opinion the first adjustment to round up or down will not go below the 50<sup>th</sup> percentile; therefore no floor is needed for this part of the adjustment. Hamid also stated that the agency is required to document the reasons for rounding up, because it will be challenged in court.

John Fisher stated that Hamid’s comment that the first reduction will not go below 50 percent is not correct. For example, if the 85<sup>th</sup> percentile is 34.6 mph, and if you go down 4.6 mph, the speed limit will go below the 50<sup>th</sup> percentile.

Some members believe that the documentation at the first adjustment is extra work and it will be time consuming. The agencies have to justify and document if they are doing additional 5-mph reduction based on unusual conditions not apparent to drivers, therefore to justify up or down at the first adjustment is not needed. This is also MUTCD language.

Jacob Babico stated that if you round up then the speed is above the 85<sup>th</sup> percentile speed and above the pace speed too.

John Fisher stated that the MUTCD language does allow “within” 5 mph of the 85<sup>th</sup> percentile speed of free flowing traffic. If the 85<sup>th</sup> percentile is 39 mph, you go up and post 40 mph unless unusual conditions exist. The MUTCD language does allow you to go up or down.

Hamid Bahadori stated that if the 85<sup>th</sup> percentile is 38 mph and an agency goes down to 35 mph, based on the MUTCD language it can be challenged why rounding upwards was not considered. He further reiterated that if the language provides justification when it is rounded upwards, then the challenge option could be countered.

Chairman Mansourian also stated that you do not want too much paperwork and justification when Federal language allows you to go up or down.

Jeff Knowles also commented that the current MUTCD language does not require documentation if you go up or down.

Wayne Henley stated that he would support the proposal to change to “within”.

There was lengthy discussion on the rounding up or down or within 50<sup>th</sup> percent floor and on additional 5-mph reduction based on conditions not apparent to drivers.

The committee members were unanimous on the first rounding and agreed to adopt the MUTCD language which is as follows:

***“When a speed limit is to be posted, it should be within 5 mph of the 85th-percentile speed of free-flowing traffic.”***

The Committee also wants to set a 50 percent floor, except for Jeff Knowles, who likes to keep flexibility if conditions are warranted to go lower than 50 percent.

John Fisher stated that he would like to see a floor of more than 50 percent.

The Committee members were also unanimous on the additional 5-mph reduction based on the unusual conditions not readily apparent to drivers.

There was discussion to clarify or beef up the guidelines for the additional 5-mph reduction which is based on unusual conditions not readily apparent to drivers.

Hamid Bahadori argued that the Committee should not recommend any additional language for the unusual conditions, because it is very clearly covered in the CVC Section 22358.5. The Sections is as follows:

**Downward Speed Zoning:**

**22358.5. It is the intent of the Legislature that physical conditions such as width, curvature, grade and surface conditions, or any other condition readily apparent to a driver, in the absence of other factors, would not require special downward speed zoning, as the basic rule of section 22350 is sufficient regulation as to such conditions.**

Hamid Bahadori stated that the Committee does not want to interfere with the CVC.

There were three separate motions presented. Two motions in regards to initial rounding and additional 5-mph reduction based on unusual conditions not readily apparent to drivers that were passed unanimously. The third motion was in regards to the 50 percent floor, which was passed 7-1, Jeff Knowles voted against it.

John Fisher stated that he would like to add language that when agencies reduce 5-mph based on conditions not apparent to drives, that it shall be documented. John further added that if an agency rounded up during the first adjustment, then they have only one 5-mph reduction if it is justified.

Chairman Mansourian suggested that John's comment would enhance the guidelines for a 5-mph reduction based on unusual conditions.

Jeff Knowles quoted a Santa Ana letter which states, "this is ultimately in the interest of safety and retains the lowering of speed limit postings only when truly necessary and based on a significantly high collision rate where such lowering could be expected to address a condition which cannot otherwise be resolved or made apparent to the motorist." Jeff Knowles further stated that by establishing a floor, it will not allow going down from 50 percent, if certain roadways have collision problems and that collision are justified by the enforcement department. He stated as long as the reduced speed is within the pace speed, the engineer should have flexibility to go down. The lower speed limit should be within the pace speed, not within the percentile.

John Fisher stated that sometimes the lower limit of the pace is 30<sup>th</sup> percentile and in this case you put the super majority in violation when they are actually law abiding drivers.

Hamid Bahadori reiterated that the agencies have been doing this for decades, that they are posting artificial speed limits based on the conditions not readily apparent to drivers. However, when they go back after 5-10 years and do the E&TS, the 85<sup>th</sup> percentile speed is still the same or above. There is no change in driver behavior. If there is a collision problem, then why not use some other mitigation available instead of posting artificial speed limits the place the super majority of drivers in violation.

Jeff Knowles stated that he has a number of residential streets where he has to do the E&TS and the critical speed is 31 mph and the mean speed is 26 mph. Now, if there is floor of 50<sup>th</sup> percentile, then a 25-mph speed limit is not justified, because the 50<sup>th</sup> percentile is 26 mph. He does not like this restriction; he would like to keep flexibility so in certain cases he will be able to go to the lower end of the pace speed.

John Fisher stated that sometimes agencies are looking for all the solutions by posting a lower speed limit. The speed limit sign is part of the solution, but not the whole solution. The proposed language allows a first adjustment up or down, then a further 5-mph reduction if justified, however you do not want to place a speed limit which is below to the 50<sup>th</sup> percentile. If a particular street still has problem, other mitigation should be considered, such as flashing beacons, enforcement, more community signs, speed humps, etc. There is enough abuse of posting speed limits 25, 30, 40 percentile, placing the majority of drivers in violation, when they are safe drivers. He would support flexibility, however not without a floor.

Chairman Mansourian stated that the Committee members have voted on three different motions and he would like to clean it up and ask someone to combined all three motions and present it to the Committee for voting.

There were no other comments.

**Motion:** Moved by Wayne Henley, seconded by Hamid Bahadori, recommends that Caltrans amend the CA MUTCD Section 2B.13 as follows:

“When a speed limit is to be posted, it should be within 10 km/h or 5 mph of the 85th-percentile speed of free-flowing traffic.”

The speed limit may be further reduced by 10 km/h or 5 mph, if unusual conditions not readily apparent to drivers exist, as long as it is in compliance with CVC Section 22358.5 .

If used, a one time 10 km/h or 5 mph reduction shall be documented in writing. The final, speed limit shall not be less the 50<sup>th</sup> percentile.

Motion carried 8-0.

Chairman Mansourian asked for comments on the motion.

Hamid Bahadori asked that the current CA MUTCD Section 2B.13 has language which contradicts; he suggested that Caltrans consider revisiting during the amendment and clean out misunderstandings.

Chairman Mansourian suggested that when the Committee and Caltrans have draft language for this section, he would like share it with the 400 cities and 58 counties before the final adoption during the next meeting. He asked Caltrans to e-mail the draft language to the Committee members for review and comments.

**Action:** Caltrans will work on the amendment of the CA MUTCD Section 3B.13, and draft will be taken to the next CTCDC meeting for review and recommendations.

## **07-22 Proposal to adopt “Trucks Entering Exiting” sign C44 (CA)**

Chairman Mansourian asked Wayne Henley to discuss agenda item 07-22, Truck Entering Exiting sign.

Wayne Henley stated that the proposed new sign shown on page 10 of 44 of the agenda packet has been requested by Caltrans to adopt in California. This sign has been used by Caltrans with a special approval from the Headquarters Division of Traffic Operations. CA MUTCD does have a W8-6 “Truck Crossing” black on yellow warning sign and a W8-6 “Truck Crossing” black on orange temporary sign. Currently, Caltrans uses this modified construction sign in their design plans.

Wayne added that most of the freeway construction project does not have truck crossings. Instead, the truck traffic enters and exits from the construction zones. The sign has used successfully and it is a good tool to inform the motoring public that slow trucks are merging from the right shoulder or the median. Wayne Henley stated that making this sign a standard sign would assist all designers, he asked the Committee to make a recommendation for the adoption of this sign.

Chairman Mansourian asked for public comments.

David Royer, consultant, stated that he works in work zone training designing for the last 40 years and the proposed sign is a excellent idea. He supports the adoption of the sign. However, he suggested deleting the 30-inch sign specs since the lettering will be too small to read the message. He suggested adopting only 36-inch and 48-inch variations.

Amanuel Haive, Marin County, stated that normally when motorist see this sign and they do tend to slow down to see from where the trucks are entering or exiting. He suggested using additional devices such as flashing beacon or CMS to give real time messages to motorists so they do not slow down if there is no truck activity.

Hamid Bahadori asked Wayne Henley if he agrees with David Royer's comment to eliminate the 30-inch size.

Wayne Henley responded that is a good suggestion.

Chairman Mansourian asked if Caltrans consider Amanual comments to add additional devices.

Wayne Henley responded that to add flashing beacons or CMS sign is a whole separate issue.

There were no other comments.

**Motion:** Moved by Hamid Bahadori, seconded by Jeff Knowles, and recommended that Caltrans adopt the sign by deleting the 30-inch size and adopting a 36-inch and 48-inch size.

Motion carried 8-0.

**Action:** Item completed.

### **07-23 Bus Preferential Only Lane Signs**

Chairman Mansourian asked Deborah Wong to introduce agenda item 07-23, Bus Preferential Signs.

Deborah Wong stated that the City of San Francisco requested to restore bus preferential signs which were not adopted from the MUTCD to the CA MUTCD. They were deleted during the adoption of the CA MUTCD. She introduced Javad Mirabdal from the City of San Francisco and asked him to share his concerns with the Committee.

Javad Mirabdal stated that the transit lane signs on San Francisco City streets display a diamond symbol. The City of San Francisco is in the process of updating all transit lane signs on city streets in order to conform to the standard for diamond lane usage. The current CA MUTCD standards do not allow the use of diamond symbols on the bus, taxi, or bicycle Preferential Only Lane signs. For its transit lane sign upgrade project the City of San Francisco intends to use MUTCD signs such as BUS LANE AHEAD (R3-10a), RIGHT LANE – BUSES ONLY (R3-11b), and BUS & TAXI ONLY (R3-14b), which do not display the diamond symbol. However, these and related signs have been deleted from the Figure 2B-7 in the California MUTCD. The California MUTCD presents a host of new signs in Figure 2B-7 (CA), which focus on carpool lanes, but does not address preferential only lane signs for buses on urban streets.

Javed stated that the San Francisco Municipal Transportation Agency asks the CTCDC to restore the MUTCD signs in the CA MUTCD and asks for permission to use the existing MUTCD signs related to bus preferential only lanes such as R3-10a, R3-11b, R3-14b and Bus Lane Ends. Javed Mirabdal stated that there are some additional proposed signs on the agenda page 18 of the 44, the City has plans to use in the future and he requested to defer for a future meeting.

Chairman Mansourian asked for public comments. There were none.

Chairman Mansourian asked comments from the Committee members.

John Fisher stated that he remembers a complete discussion on the carpool signs during the adoption of the CA MUTCD and does not recall why these signs were deleted.

Don Howe, Caltrans, Headquarters, Division of Traffic Operations, informed the Committee members that California does not use "HOV" terminology, instead California uses "Car Pool" to designate diamond lanes. That was the reason, these signs were not adopted in CA MUTCD. If the City of San Francisco has a need of these signs they can be restored in the CA MUTCD.

There were no other comments.

**Motion:** Moved by Hamid Bahadori, seconded by Deborah Wong, and recommended that Caltrans adopt signs R3-10a, R3-11b, R3-14b and End Of Bus Lane into the CA MUTCD as requested by the City of San Francisco.

Motion carried 8-0.

**Action:** Item Completed.

### **07-24 Installation of School Assembly C in Rural Areas with Sidewalks**

Chairman Mansourian asked Jacob Babico to address agenda item 07-24, Installation of School Assembly C in Rural Areas.

Jacob Babico used a PowerPoint presentation to share his concerns with the Committee members and the audience. He stated that the 1996 Traffic Manual, Figure 10-1 shows the school sign installation in urban areas with a sidewalk. However, it does not show for the rural areas. The CA MUTCD does not have any illustration showing signs in rural or urban areas with a sidewalk. Jacob Babico also discussed school signs on sidewalks in different jurisdictions with different heights. He also discussed how one pedestrian walking on the sidewalk hit their forehead with a sign which was 5 feet above the sidewalk. He suggested that the CA MUTCD should show an illustration of School Assembly C in urban areas and rural areas with a sidewalk. He stated that there is a need to clarify the recommended height for the School Assembly C signs in rural and urban areas with sidewalk.

Chairman Mansourian asked for public comments, there were none.

Chairman Mansourian asked comments from the Committee members.

Hamid Bahadori questioned Jacob Babico if he wanted Figure 10-1 of the 1996 Traffic Manual to be inserted into the CA MUTCD, as long as the CA MUTCD includes this information.

Jacob Babico responded yes, that is what was missing in the CA MUTCD.

Jeff Knowles asked if the proposed standards are not applicable if signs are 3.6 meter away from the edge of travel way.

Jacob Babico responded that the 7 feet height is only applicable if the sign is installed on the sidewalk.

John Fisher stated that the general guidance principal for 7 feet height is a curb. Even if there is no sidewalk, if a curb is present, pedestrians can still walk behind the curb.

There were no other comments.

**Motion:** Moved by Hamid Bahadori, seconded by Wayne Henley, recommends that Caltrans show the 7' minimum vertical clearance from the bottom plate of School Assembly C on sidewalks in rural and urban areas".

Motion carried 8-0.

**Action:** Item completed.

**06-8 FHWA's Interim Approval for Optional Use of Flashing Yellow Arrow (FYA) Traffic Control Devices**

Chairman Mansourian informed the Committee that during the last meeting a Sub-Committee was formed to discuss the FYA and sort out the concerns raised by Caltrans. Johnny Bhullar was appointed to lead the Sub-Committee, however, he was not able to call a meeting and no progress has been reported. He asked Wayne Henley to address this issue with the Sub-Committee which was formed during the last meeting. If Johnny is not able to call a meeting, then he needs to appoint someone else.

John Fisher stated that the Committee has discussed this item numerous times and Caltrans raised safety concerns. There should be a meeting called including the jurisdictions using this device to reach a resolution, because the 2009 MUTCD draft is coming any time now, and he is sure the FYA has been included in that draft.

There were no public comments.

Chairman Mansourian stated that item is deferred for the next meeting.



## **6. Request for Experimentation**

### **04-12 Requests to Expand Citywide Existing experimentation with "Flashing Yellow Arrows"**

Chairman Mansourian asked Hamid Bahadori to address agenda item 04-12, FYA.

Hamid Bahadori stated that the City of Pasadena does not have any representatives present in the meeting; therefore he will recommend deferring this item and only putting it on the agenda if the city requests it in the future.

## **06-2 Experiment with Colored Bike Lane**

Chairman Mansourian asked Sponsor Deborah Wong to introduce the Colored Bike Lane experimental request.

Deborah Wong stated that the City of San Francisco is requesting to experiment with colored bike lanes and this item is continuous from the previous meeting. The proposed location has conflicting movements with vehicles making left-turn and right-turn movements. Deborah Wong introduced Dustin White from the City of San Francisco and asked him to share the experiment request with the Committee.

Dustin White stated that the City of San Francisco has an extensive network of on-street bikeways, approximately 2.1 percent of the traffic, 205 miles bicycle network of bike lanes, and is continually working to improve its bicycle route network to encourage more bicycling and to improve safety. Bikeway improvement projects in San Francisco are complicated by the City's topography, a high demand for on-street parking, and high volumes of transit and motor vehicle traffic on many streets. To address the unique conditions along San Francisco's bicycle route network, a series of Supplemental Design Guidelines were developed as part of the 2005 San Francisco Bicycle Plan Update. These guidelines are intended to provide design guidance for unique bikeway facility situations within San Francisco. The Supplemental Design Guidelines also propose experimental facilities such as colored bicycle lanes.

Dustin White stated that some of San Francisco's bicycle lanes striped in between narrow motor vehicle turn lanes and through lanes, left-turn bicycle lanes, and locations where motorists must cross bicycle lanes at acute angles. In these situations, additional attention by bicyclists and motorists is required to encourage safe merging behavior and proper lane placement, and to discourage motorists from encroaching into space designated for bicyclists. He stated that the City of San Francisco proposes experimenting with the use of both solid green colored pavement and dashed green colored pavement. Solid green colored pavement is proposed along portions of bicycle lanes separated by solid white lines to emphasize proper lane placement and discourage motorist encroachment, and dashed green colored pavement is proposed along dashed portions of bicycle lanes to encourage safe merging behavior between bicyclists and motorists. This experiment proposes the use of a non-standard green colored pavement as a traffic control device. Dustin White talked about the ongoing experiment with colored bicycle lanes. The City of New York is currently experimenting with the use of a solid colored treatment in a standard bicycle lane to determine its effectiveness at reducing encroachment by motorists. The City of Chicago and the State of Vermont is studying a solid green bike lane in a Potential Conflict Area. The City of Portland completed their study in 2000 and they used blue color bike lanes.

Dustin White stated that there were some promising results and some drawbacks too. He discussed the proposed colored material and stated that the FHWA approved experiment for the Cities of Chicago and New York, and by the State of Vermont, have all used the color green for experimental colored bicycle facilities. The Bicycle Technical Committee (BTC) and the Pavement Markings Technical Committee (PMTTC) of the National Committee on Uniform Traffic Control Devices (NCUTCD) has suggested the use of the color green for experimental colored bicycle facilities.

Dustin White further added that before application of a colored material on public right-of-way, San Francisco will test multiple materials to compare durability, eases of application, ease of maintenance, and visibility under varying light and weather conditions. Based upon an initial review of available products, the preferred colored material will likely be a micro surface binder consisting of a colored synthetic bitumen emulsion, with glass beads added to provide retroreflectivity.

Dustin White shared the locations by using a PowerPoint presentation. He showed with a brief description of the existing design configuration and proposed design configuration. Dustin White shared 10 locations where they proposed colored bike lanes and the locations are listed below. He stated that additional locations may be added, and some of the locations below may be removed from consideration upon further review.

1. 8Th Street at Brannan Street (Through bicycle lane between through and right-turn only travel lanes)
2. Alemany Boulevard at Ocean Avenue (Through bicycle lane between through and right-turn only travel lanes)
3. Alemany Boulevard at Rousseau Street (Left-turn only bicycle lane between through and left-turn only travel lanes)
4. Alemany Boulevard at San Jose Avenue, Northbound (Through bicycle lane between through and right-turn only travel lanes)
5. Alemany Boulevard at San Jose Avenue, Southbound (Left-turn only bicycle lane between right-turn only and left-turn only travel lanes)
6. Alemany Boulevard at Sickles Avenue (Through bicycle lane that motorists must merge across at acute angle)
7. Division Street at 9Th Street (Through bicycle lane that motorists must merge across at acute angle)
8. Howard Street at 11th Street (Left-turn only bicycle lane between through and left-turn only travel lanes)
9. Market Street at 10th Street (Through bicycle lane between through and right-turn only travel lanes)
10. San Jose Avenue at Guerrero Street (Through bicycle lane that motorists must merge across at acute angle)

Dustin White stated that the City of San Francisco proposes conducting a before-and-after study that will include counts of motorists and bicyclists, reported crash data, and observational data on motorist and bicyclist behavior and conflicts. He asked the Committee members whether they have any questions for him.

John Fisher asked if all the proposed locations showing color treatments are at the approach of the intersections. Do you have merging or weaving problems the approaching the intersection or is the proposal just a preventive measure?

Dustin White responded that there is not any major problem, not that many collisions. However, there are numerous close calls and potential for collisions. Observation shows that the bicyclists are not comfortable in this type of design configuration.

Hamid Bahadori stated that he is not sure if the City of San Francisco has a similar configuration on other streets. He suggested choosing similar locations and to compare the data with the color treatment and without the color treatment to see the effectiveness. If the City is not able to find similar locations, then he suggested picking half of the locations with color treatment and to use the other half as a control to see if the proposal has any positive results.

Jeff Knowles stated that thermoplastic is not recommended to use because it becomes slippery when it is wet. Are you using different material?

Dustin White responded that they are not using thermoplastic. However, the City is evaluating different materials with texture and during the experiment it will be determined which materials work better.

John Fisher asked that at the end of the experiment, how will other agencies know if the results are positive and whether they would like to use the same treatment in similar situations. John further suggested that in the data collection process, the City should include a survey to ask motorists if they understood the meaning and if they were exercising more caution during the merging and weaving. This will measure what they know and what they believe.

Dustin White stated that page 28 of the agenda packed has listed the data collection:

### **DATA COLLECTION**

Observations will be recorded by video camera with before-and-after data collected and tabulated. Each location will be observed multiple times during peak activity periods (typically on weekdays during the hours of approximately 7am-9am and 4pm-6pm). The before data collection will be separated from the after data collection by several weeks. User surveys of both motorists and bicyclists may also be utilized to collect information on user perception of the meaning of the colored material. The following observations will be recorded:

- \_ o Number of motor vehicles encroaching into bicycle lane
- \_ o Motorists' distance of encroachment into bicycle lane
- \_ o Number of conflicts\* between bicyclists and motorists
- \_ o Motor vehicle and bicycle volumes
- \_ o Bicyclists' behavior (signaling, shoulder checks, etc.)
- \_ o Motorists' behavior (signaling, yielding right-of-way, frequency of aggressive behavior, etc.)
- \_ o Durability of the colored material

\*The research team prior to the beginning of the study will define Conflicts. Typical indications of a conflict are sudden braking, swerving, or acceleration. Variable interpretations of what constitutes a conflict will be minimized by having the same researcher viewing before and after data.

Jacob Babico asked how a bicyclist will receive the green color during the dark period. Currently, only two colors are used for striping, white and yellow and both are brighter. He is not sure if the green color will be visible during dark or nighttime.

Dustin White responded that at this point there is no standard color recommended by the FHWA. There are some brighter colors such as florescent green and during the experiment it will be determined which color is more suitable and visible.

Wayne Henley asked about the Portland study, if they had any conclusive findings.

Dustin White responded that the Portland study had positive and negative results. The bicyclists assumed that they were in a protective zone.

Hamid Bahadori suggested consulting with Caltrans Division of Research and Innovation (DRI) to get their input on the color and material selection process.

Wayne Henley offered to provide a contact person from DRI to the City of San Francisco.

Chairman Mansourian asked for public comments.

Amanuel Haive, Marin County, stated that the New York study was overkill. He suggested that the City of San Francisco may consider using tape because it works better. However, it takes lot of labor to install. He also suggested considering water base paint, because it would not be slippery.

Zubir Ouadah, City Poway, suggested following the manual to determine the proper length of the dashed area to see if the conflict (weaving) area is enough. Secondly, supplemental signs may be helpful in addition to the pavement treatment.

Matt Schmitz, FHWA, stated that he has not heard about any educational efforts. He asked if the education was not considered purposely so it can be seen how motorists and bicyclists react to the pavement treatment.

There were no other comments.

**Motion:** Moved by Hamid Bahadori, seconded by John Fisher, authorize the City of San Francisco to conduct an experiment with colored bike lanes subject to FHWA approval. Also, the City inform the Committee what type of material they picked for the color and also report to the committee before data and the post data as experiment progress on interim basis.

Motion carried 8-0

Chairman Mansourian suggested that in addition to John Fisher's comment on the data collection, he would ask the City to consider survey the drivers and bicyclist to find out if they believe that is their right of way. Also collect the data during different times to see visibility of the material used for the experimentation.

**Action:** Item approved for experimentation.

**Note: Chairman Mansourian stated that he wants to share some housekeeping items with the Committee members and audience. First, all the experimental requests should be submitted on agency letterhead that has jurisdiction of the roadway.**

**Second, when a Committee member sponsors an item he should submit an experimental progress report on letterhead.**

**He stated that sometimes experimental requests are submitted by e-mail without letterhead.**

## **07-20 Request for Permission to Experiment with “HAWK” Traffic Control Devices)**

Chairman Mansourian stated that the next item is a continued experiment request with “Hawk” traffic control devices and the request was submitted by the City of Emeryville. He stated that during the last meeting Committee members had some questions and concerns with the proposal and asked the City to address those questions and concerns before the proposal can be voted. He asked the representatives of the City of Emeryville to address their proposal with the Committee.

Maurice Kaufman, Acting Public Works Director/City Engineer, introduced Steve Chan and stated that Steve will address the questions raised by the Committee during the last meeting.

Steve Chan, Kimley-Horn and Associates, Inc., showed video clips for the operation of a HAWK beacon, which were taken in Tucson, AZ. Steve Chan explained that the operation of the HAWK signal in lieu of standard traffic signal, the HAWK is beacon type device. When pedestrian pushes the button to cross a street it starts flashing yellow, then yellow and it goes to red when the pedestrian gets to the walk phase. On the side street there will be a No Stop legend, however, there will be a flashing red beacon and the vehicle will proceed when it is safe to proceed.

Steve Chan stated that the following are formal responses to comments raised by the committee during the quarterly meeting on June 7, 2007:

- 1) Committee determines that the HAWK beacon signal is classified as a traffic signal.

**Response:** HAWK beacon signal although sharing many of the same equipment as a standard traffic signal is not a standard traffic signal. This is similar to traffic control devices such as flashing yellow beacons, flashing red beacons, ramp meter signal, and lane control signals, in used on the roadway which uses of the same equipment as a traffic signal but are not classified as standard traffic signals.

- 2) Committee considers dark signal indications of a HAWK beacon signal to be a nonoperative signal, and California Vehicle Code requires vehicles to stop at a nonoperative signal before they can proceed through an intersection.

**Response:** California Vehicle Code 21800(d) does not state a dark signal indication constitute a non-operative signal. In fact, there is no reference to dark or blank signal indication in the California Vehicle Code.

Per MUTCD-Section 4A.02 Definition Relating to Highway Traffic Signal, Dark Mode refers to the lack of all signal indications at a signalized location. The dark mode is most commonly associated with power failures, ramp meters, beacons, and some movable bridge signals. As part of the normal operation of the HAWK beacon signal, signal indications are not illuminated or dark. This is similar to the operation of Lane-Use Control signal which is allowed to be dark per MUTCD Section 4J.0

- 2) California Vehicle Code prohibits a stop sign to be installed in conjunction with a signal at an intersection.

**Response:** CVC 21355 prohibits installation of a stop sign at the entrance of an intersection controlled by a signal. In lieu of the stop sign installations on the side streets, the City would install flashing red stop signals to replace the side street stop signs. The flashing red stop signal would have the same control as a stop sign and would not conflict with the CVC.

4) Committee questioned potential conflict of operating flashing red indications and flashing “Don’t Walk” indications.

**Response:** Concurrent flashing red vehicle indication and flashing “Don’t Walk” operation does not violate the CVC. On a flashing red indication, drivers are required to stop and yield the right-of-way to vehicles already in the intersection. Also, drivers shall yield the right of way to pedestrians within the marked crosswalk per CVC Chapter 5, Pedestrians’ rights and duties. Per these two sections of CVC, drivers are to yield to pedestrians in the crosswalk at all time. Furthermore, flashing “Don’t Walk” only alert pedestrians to not start to cross the roadway in the direction of the signal indication and any pedestrian who has already started to cross on a steady “Walk” signal indication shall proceed out of the traveled way.

5) Committee questions what appropriate California Vehicle Code should allow law enforcement to cite violation of the HAWK beacon signal if it is not a standard traffic signal.

**Response:** Violation of the HAWK beacon signal could be cited by CVC 38300, Failure to obey any sign, signal, or traffic control device.

6) Committee requests criteria for when future installation of the HAWK beacon signal would be warranted.

**Response:** The request for the City to develop a warrant/criterion for future HAWK beacon signal installation is not appropriate at this time. Since the City is only requesting to test a single case of HAWK beacon signal installation, no data or study is available to support its effectiveness yet. It is premature to develop warrant at this time.

7) Committee requests timing parameters of the HAWK beacon signal.

**Response:** The City would apply standard traffic signal timing parameters per California MUTCD guidelines for yellow clearance, walk, and don’t walk to the HAWK beacon signal. Flashing yellow sequence would initially be programmed for typical driver reaction time (4 seconds) and would be further refined in field.

Steve Chan asked the Committee members if they have questions for him.

Hamid Bahadori stated that he is still not convinced that the HAWK is not a traffic signal. There is flashing yellow (FY), flashing red (FR) and they have specific meaning in the CVC. He added that the CVC Section 21800, which was mentioned in the explanation clearly under subhead (d), states that:

“The driver of any vehicle approaching an intersection which has official traffic control signals that are inoperative shall stop at the intersection, and may proceed with caution when it is safe to do so. This subparagraph shall apply to traffic control signals that become inoperative because of battery failure.”

Hamid Bahadori further stated that there will be a three head FR and the heads will be blank during certain periods, the CVC is very clear when the signal heads are blank. It means it is a Stop controlled intersection. He commented that Steve Chan has mentioned that the violation could be cited under CVC 38300. The CVC 38300 states:

“It is unlawful for the driver of any vehicle to disobey any sign, signal, or traffic control device placed or maintained pursuant to Section 38280.”



Hamid Bahadori stated that there is no Stop sign, it means the violation will be either under signal or other traffic control device. Hamid Bahadori further stated that it is not just the City of Emeryville's issue, it will be a California issue. If it becomes a standard in California, how will people react. To eliminate the Stop sign the City added a FR beacon and now it appears more like signalized intersection. He stated that he is not comfortable with the proposed experiment.

Maurice Kaufman, City of Emeryville, asked Hamid if ramp-metering signals are blank most of the time and if the motoring public does not consider them as a Stop sign.

Hamid Bahadori stated that ramp metering has a sign which says meter is on when flashing.

Maurice Kaufman stated that it is very simple to add a sign which says "Stop" on red or FR, it is very easy to do.

John Fisher stated that there were some good responses to the Committee questions which were raised during the June 2007 meeting. However, the responses also raised more questions. Now the revised proposal will have FR on the main street and FR on the side street, when both approaches have FR, the traffic on the right has a right of way in which case the traffic from the side street would have the right of way, which is not the intend of this operation. Also, if there is a violation, it will be sited under the violation of FR beacon and it means it is signal. John Fisher stated that the Tucson HAWK operation is not the way the City of Emeryville proposal is.

Steve Chan responded that the reason they proposed FR at the side street is because CVC does not allow a Stop sign within the signalized intersection.

John Fisher further stated that the proposal would have solid red on the main street and FR at the side street, then asked if the manual allows this. What is the meaning to the motoring public of the conflicting signal indications?

Steve Chan responded that the traffic facing red would stop, and traffic facing FR stop, and proceed when it is safe.

Jacob Babico stated that by using signals at the main street, you are regulating traffic and it means you are regulating traffic by using a signal. There is also a pedestrian walk phase, don't walk, and solid red hand to regulate pedestrian traffic. On the side street you are using FR to control the motoring public, and he believes it is traffic signal.

Hamid Bahadori stated that normally the purpose of the experiment is to either alleviate a problem or to test a new traffic control device. At the proposed location, is there any documented safety problem?

Maurice Kaufman responded that there is no reported problem at this time, however there is potential for problems. Secondly, the City wants to encourage pedestrians to use that crossing. The City wants to use innovative devices, because the in-roadway warning lights are not effective. The HAWK signal is used in different states, and FHWA has it approved under experimentation.

Chairman Mansourian opened the item for public comments.

Zubir Ouadah, the City of Poway, stated that the CA MUTCD Section 2B.05 under the standards states: "because the potential for conflicting commands could create driver confusion, Stop signs shall not be installed at intersection where traffic signals are installed."

Trev Holman asked why FR at the side street is being used, and not a Stop sign. He further stated that FR at the side street and a blank signal at the main street may cause potential collisions, because the motorists on the side street are not aware of what types of indications there are for the main street traffic.

There were no other public comments.

Chairman Mansourian told Maurice Kaufman and Stave Chan that the Committee members are still not convinced with the responses to their questions. He asked them whether they would like to continue the item and do more research to find answers to the concerns raised by the Committee, or if they would like to see the Committee vote on their request. He added that he sympathizes with the efforts made by the City, however, some legal issues need to be resolved.

Lujuanna Lopez stated that she concurs with the issue raised by her colleagues and she supports this time of operation at a mid-block crossing. She does not support it at the intersection, because it appears signals at the intersection. She further asked clarification from Matt Schmitz if the proposed device has been adopted by the FHWA.

Matt Schmitz responded that it is not adopted by the FHWA yet; however, FHWA has approved it for experimentation.

John Fisher asked that the concern raised by the Committee members, such as if main street has solid red and side street has FR, then FR on main street and FR on side street, requires some solutions. If you come up with solutions then he suggests coming back to the Committee.

Chairman Mansourian asked for Maurice Kaufman's opinion.

Maurice Kaufman stated that they request for the continuation of the item and seek the solutions to the Committee's concerns.

Motion: Moved by Wayne Henley, seconded by John Fisher to continue the item for a future meeting.

Motion carried 8-0.

Action: Item will be placed on the agenda if requested by the City.

## **7. Discussion Items**

### **07-25 Watershed Signs**

Chairman Mansourian asked Wayne Henley to discuss the agenda item for Watershed signs.

Wayne Henley stated that CTCDC provides guidance to Caltrans on traffic control devices and he believes the Watershed sign is not a traffic control device, the sign does not regulate, guide or warn the traffic, so why was the Committee dealing with this sign. Caltrans received a number of requests for the installation of Watershed signs and he believes the request should be handled through an encroachment permit. He stated that he would like to get the Committee's opinion on this sign.

Chairman Mansourian explained the history of this program and stated that Gerry Meis who represented the Committee on behalf of Caltrans placed this item on the agenda to get the Committee's opinion on the Watershed sign. One of Caltrans Districts received request to install signs in Caltrans right of way. Caltrans District told the applicant that the sign is not approved; therefore it cannot be installed on the State right of way. Then Caltrans placed this sign under the discussion item to get input from the Committee.

Hamid Bahadori stated that Caltrans D11 told the City of San Diego Water Department that the Watershed sign is not an approved sign and they would not entertain their request. D11 and Caltrans Headquarters decided to take this request to the CTCDC and to get the Committee's opinion on the proposed sign. The Committee struggled to determine whether this is a traffic control sign or not. After a series of three meetings, Committee determined that even though the sign is not regulating, warning or guiding the traffic, it is an information sign and there are number of signs in the MUTCD and CA MUTCD which provide information to motorists. The Committee determined instead of having different sign used by various water districts, it would be beneficial in developing a standard sign which could be used by other water districts to keep uniformity and consistency.

John Fisher stated that there was a lot of discussion on the Watershed sign, whether it is a traffic control device or not. He believes it is a traffic control device because it informs the motoring public about entering a recreational area, watershed area, and it is an information sign. When San Diego came to the Committee, the Committee asked San Diego to coordinate to see if they can get support on the proposed sign from the State Water Control Board and from various Water Districts throughout the State to use same sign. The San Diego Water Department submitted numerous letters from the other Water Districts as well as from the State Water Control Board in support of the proposed sign. He further added that if a sign is not standard, why would Caltrans allow a non-standard sign on a State right of way. John Fisher also gave the Caltrans D7 example where they allowed non-standard signs for the airport of Los Angeles. Now the airport authority is approaching the City of Los Angeles and asking to allow similar signs in the City's right of way. If you allow non-standard signs, it becomes precedence. Other information signs include: welcome signs and prevent forest fire signs.

Wayne Henley stated that he would go back and discuss with management.

Chairman Mansourian stated that the representative from San Diego would like to provide an update on the ongoing experimentation.

Destree Lazo, Consultant to the City of San Diego Water Department Water Operations Division, stated that she and Jeff Pasek, San Diego Water Department would like to provide an update on the experiment with the Watershed signs.

Jeff Pasek passed out a handout to Committee members and stated that their agency provides water to approximately 1.3 millions customers. He stated that they are enthusiastic about the uniformity of the signs so that other agencies can use the same sign if they would like install it. He went over the PowerPoint presentation and gave an overview of the efforts to educate people about the importance of the watershed sign program. He added that the goals of the agency are to educate people about watershed awareness, the importance of protecting watershed and drinking water. Encourage the community stewardship of watersheds. The main message is to protect the water quality of drinking source water reservoirs, and keep them clean. He mentioned the Caltrans "Don't Trash California" campaign. The Caltrans sign has the same purpose and the message is "never throw out trash or liter on the ground, never throw anything out of a car or truck, pick up liter in your neighborhood and set examples for others". The watershed sign could support and supplement the "Don't Trash California" campaign.

Destree Lazo gave an overview of the program milestones going over where they've been, where they are and where they hope to go. The sign they received was not produced as per design. The incorrect signs were installed in April and May of 2007. D11 is currently working with the vendor to make sure the correct signs are made and installed. There was an electronic newsletter distributed to over 400 stakeholders on February 16, 2007 before the signs were installed to introduce the program and then another newsletter sent on July 18, 2007 to announce that the signs were installed. With the help of grant funding, some advertising helped to kick-off the pilot program campaign. Advertisements were placed in: San Diego Family Magazine, North County Times, The Natural Guide, East County Gazette, Radios, Billboards, Movie Ads, City/County Cable Access TV and program WebPages. Unfortunately, the City of San Diego was unable to maximize publicity efforts and measure effects of the publicity effectively because the wrong design of the signs was installed. Most recently, the City of San Diego participated in the California Watershed Network Forum in September. This event was attended by the Director of the Department of Conservation and representatives from several State departments and about 50 signatures were collected from around the State in support of the San Diego Water Department efforts to educate the motoring public about the watershed areas through the Watershed Sign Program.

Destree Lazo stated that the next phase of the program would be to hold an official Unveiling of the Sign ceremony and to generate more activity on the online survey in order to measure the level of sign awareness. Destree Lazo stated that next steps are to collect community feedback, involve volunteer members in outreach effort and request stakeholder to post a web link to the program to gather survey responses. The San Diego Water Department is also in process of securing support from the first coastal counties of California to follow the program and eventually the entire State of California. Another handout was given demonstrating various Southern California agencies that have contacted the City of San Diego and expressed interest in using this sign as created.

The Committee members appreciated Destree Lazo and Jeff Pasek for the update of the ongoing experiment with Watershed signs.

Lajuanna Lopez asked whether the sign was already made up.

Destree Lazo responded yes, however the sign was not exactly as they were intended and she pointed out in the handout to see the wrong and right sign. The important visual element of the sign, water, was missing.

Wayne Henley asked that Klamath has installed a different color sign; it is brown with a symbol of a fish.

Destree Lazo stated that they want to ask the Committee to adopt one sign which could be used by all the Water Districts if they adopt the program to install Watershed signs.

Wayne Henley also asked whether the symbol requires approval from the FHWA.

Matt Schmitz stated that FHWA is very strict on symbols, however they are lenient on pictographs. The proposed sign is a pictograph, not a symbol. He looked at the watershed sign and said the design would be acceptable.

Jacob Babico mentioned about the wildfire signs installed in San Bernardino County on the State Highways, which are black on yellow.

John Fisher stated that he believes a standard sign would be better, if the Committee is not coming up with a standard sign, then you will see all different kind of signs throughout the State.

Chairman Mansourian stated that if another Water District wants approval for the same sign as used by the San Diego Water Department, then the Chairman could give approval to an agency if asked in writing and the Committee was agreed.

## **8. Information Items**

### **07-26 Interpretation Letter I-44 (Intr.)-Applicability of MUTCD to (Continued) Private Property Open to Public Travel (Henley)**

This item was placed on the agenda to disseminate information to local and state agencies that deal with the roadways. To see the detailed information, the October 11, 2007 agenda can be accessed at the following website:

<http://www.dot.ca.gov/hq/traffops/signtech/newtech/>

## **9. Tabled Item**

### **06-7 MUTCD 2003 Revision No. 1 (Pharmacy Signing)**

No action was taken.

### **07-17 Proposal for C17A (CA) ROAD WORK Plaque and Amendment to CA MUTCD Section 6F.104**

No action was taken.

## **10. Next Meeting:**

The next CTCDC meeting is scheduled for Thursday, January 31, 2008, Thousand Oaks Civic Arts Plaza at 2100 Thousand Oaks Boulevard, Thousand Oaks, CA 91362.

**Adjourn: Motion:** Moved by Hamid Bahadori, seconded by John Fisher, the meeting was adjourned in memory of George Allen who passed away on September 2, 2007.

Motion carried 8-0.